

Image may differ from product. See technical specification for details.

53310

Single direction thrust ball bearing with sphered housing washer

Single direction thrust ball bearings, with sphered housing washer, can accommodate axial loads in one direction. They must not be subjected to any radial load. Many of the components are interchangeable. The shaft washers have a ground bore that enables an interference fit. The sphered housing washers can accommodate initial misalignment when

configured correctly with a sphered seat washer or a machine component with a sphered surface.

- Separable design facilitates mounting/dismounting and maintenance inspections
- Interchangeable components
- Ground bore of shaft washers enables interference fit
- Sphered housing washers can accommodate initial misalignment

Overview

Dimensions

Bore diameter	50 mm
Outside diameter	95 mm
Height	34.3 mm
Radius of aligning surface	72 mm

Performance

Basic dynamic load rating	81.9 kN
Basic static load rating	170 kN
Reference speed	2 400 r/min
Limiting speed	3 400 r/min

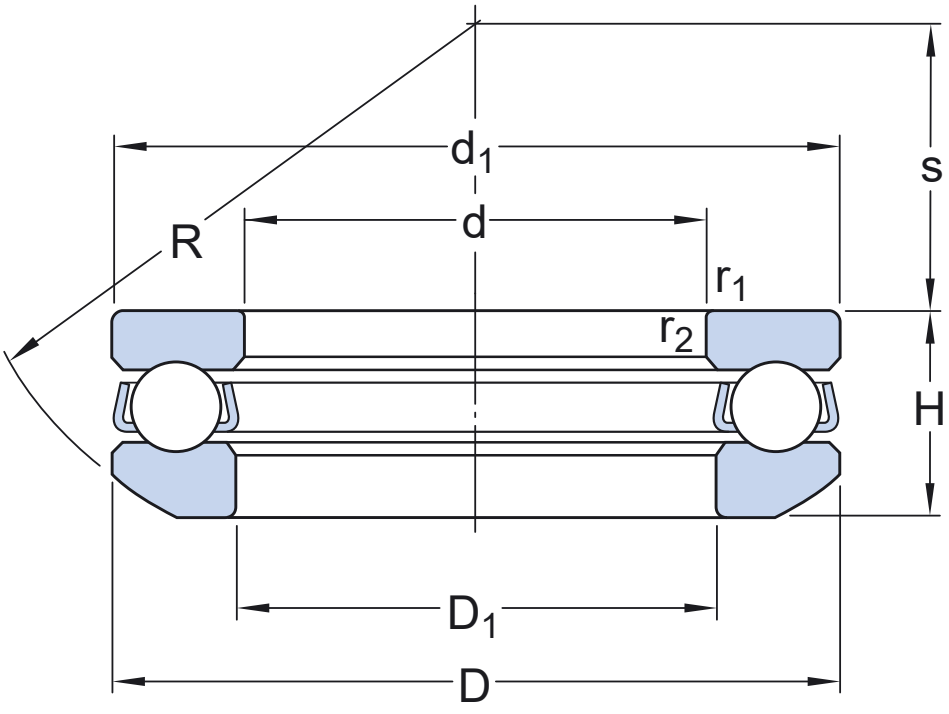
Properties

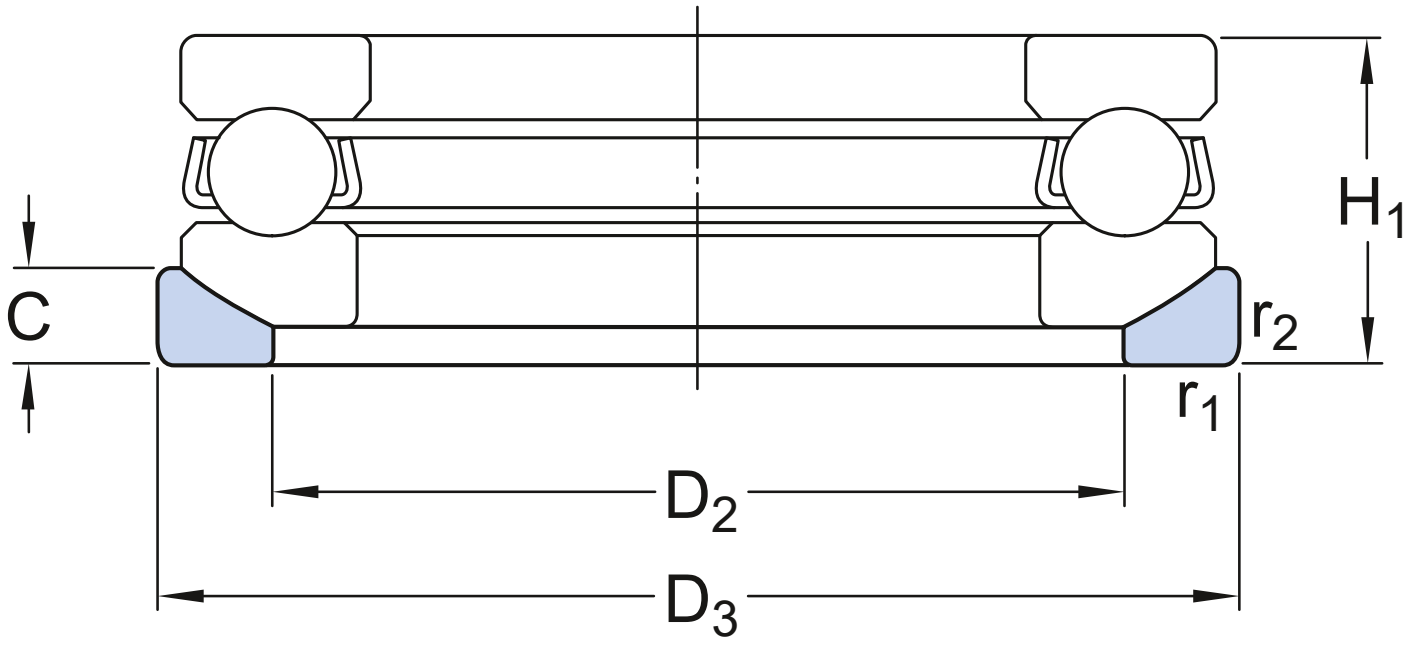
Axial load capability	Single-direction
Number of rows	1
Cage	Sheet metal
Housing washer type	Sphered
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without

Logistics

Product net weight	0.941 kg
eClass code	23-05-10-01
UNSPSC code	31171507

Technical specification

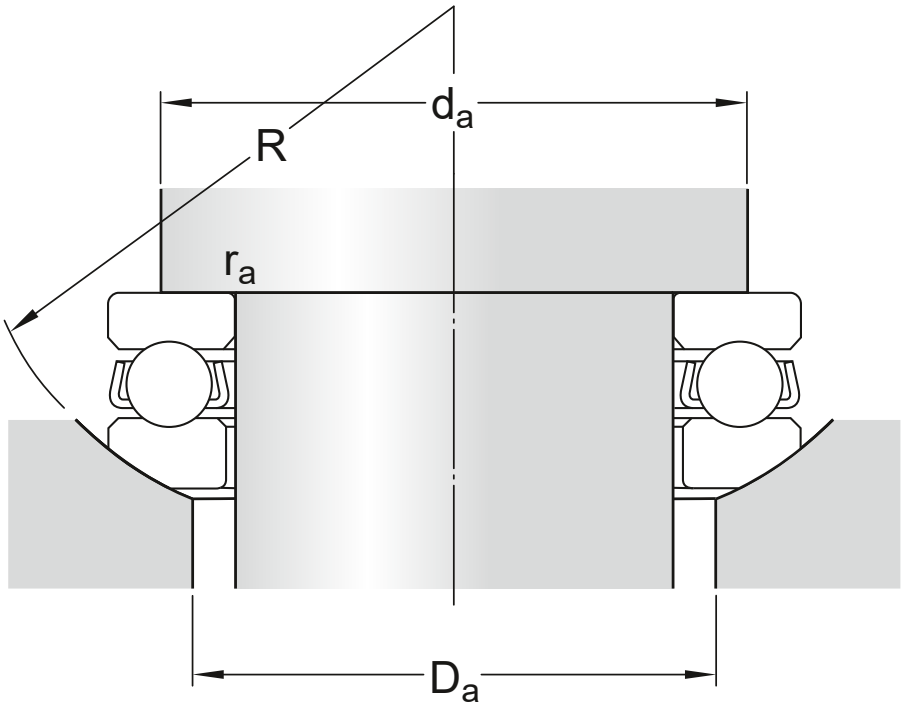




Dimensions

d	50 mm	Bore diameter
D	95 mm	Outside diameter
H	34.3 mm	Height

H_1	37 mm	Height bearing including seat washer
d_1	≈ 95 mm	Outside diameter shaft washer
D_1	≈ 52 mm	Inner diameter housing washer
D_2	72 mm	Inner diameter seat washer
D_3	100 mm	Outside diameter seat washer
C	11 mm	Height seat washer
R	72 mm	Radius sphered housing washer
s	28 mm	Centre height housing washer sphere
$r_{1,2}$	min. 1.1 mm	Chamfer dimension washer





Abutment dimensions

d_a	min. 77 mm	Abutment diameter shaft
D_a	max. 72 mm	Abutment diameter housing
r_a	max. 1 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	81.9 kN
Basic static load rating	C_0	170 kN
Fatigue load limit	P_u	6.3 kN
Reference speed		2 400 r/min
Limiting speed		3 400 r/min
Minimum load factor	A	0.19

Associated products

Seat washer	U 310

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: table 1

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit

Compatible products

Recommended product

Sphered seat washer for thrust ball bearings	U 310

More Information

Product details

- Designs and variants
- General bearing specifications
- Loads
- Temperature limits
- Permissible speed
- Mounting
- Designation system

Engineering information

- Principles of rolling bearing selection
- General bearing knowledge
- Bearing selection process
- Bearing interfaces
- Seat tolerances for standard conditions
- Lubrication
- External sealing, mounting and dismounting
- Bearing failure and how to prevent it

Tools

- SKF Product select
- Bearing Frequency Calculator
- SimPro Quick
- LubeSelect for SKF greases
- Heater selection tool

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